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E.L. CAMBRIDGE

Date: April 30, 1981
To: E. L. Cambridge
From: J. B. Snodgrass
Subject: Laboratory Facilities and Equipment Required
for Investigating AlF_3 Recovery from Spent
Potlining

Presented below is a listing (not necessarily complete), of laboratory facilities, equipment and services that will be required for conducting bench level investigations for recovering aluminum fluoride from spent potlining.

1. Services:

- a. Sample prep - crush, grind, blend and size classify potlining sample.
- b. Analytical - perform analyses for:

Total carbon	NaF	Na_2SO_4
SiO_2	NaOH	MgF_2
Al_2O_3	Na_2CO_3	Fe_2O_3
Na_3AlF_6	CaF_2	CN^-
Total F	H_2SiF_6	
HF	AlF_3	
nitrides and carbides of Al, Fe and Ca		

2. Laboratory facilities:

Approximately 15 feet of bench space plus fume hood.

3. Laboratory equipment:

Several 1-litre beakers - Carpenter 20 S.S.
Hot silicone oil bath - 240°C
Triple beam balance
Globar furnace
2-3" diameter alumina tubes for furnace
Thermocouple - 1250°C
Lab pelletizer - 2cm diameter x 2cm thick
S.S. stirrer with hot plate
Filters

John
J. B. SNODGRASS
JBS:pm